

Grand Calumet River AOC Habitat Management Actions Update

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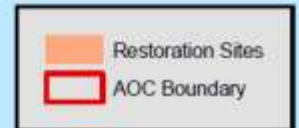
Dune & Swale Restoration Management Action #1

- ~900 acres across 15 properties
 - includes mgmt of shelf wetlands along the GCR
 - **\$2.5 M awarded to IDEM on 9/11/15 from USEPA**
 - MOA/Contract with IDNR and Lake Co. Parks (LCP)
 - IDNR and LCP contracting with private restoration companies to perform some of the work
 - IDNR has a sub-agreement with the Nature Conservancy
- **Total project cost is nearly \$5M thru 2020.**

Properties to be restored:

- Beemsterboer
- Cline Avenue NP
- Clark & Pine NP
- DuPont Natural Area
- Gary Lagoons
- Gibson Woods NP
- Ivanhoe Dune & Swale NP
- Ivanhoe South
- Lakeshore RR Prairie
- Martin Oil
- Pine Station NP
- Roxana Marsh
- Seidner Dune & Swale NP
- Tolleston Ridges NP
- USS Prairie

**Grand Calumet River AOC
Dune and Swale and
Shelf Wetlands Restoration Project**



0 0.75 1.5 3 Miles



Map by NRC, 2007
05/01/07
June 2011



TNC / DNR Restoration Crews





Gibson Woods Nature Preserve





Tolleston Ridges Nature Preserve





Tolleston Ridges Nature Preserve



Gibson Woods Nature Preserve



Gibson Woods Nature Preserve





Gibson Woods NP



Riparian Corridor Invasive Vegetation Control Project Habitat Management Action #2

- Project not yet begun
- Plan is to control weeds (primarily Phragmites, cattail and purple loosestrife) in riparian corridor along GCR
 - Reduce seed sources that are upstream of restored sites
- Was suggested to be an EPA direct contract
- Work could be completed by boat with broadcast herbicide application
- Total project cost estimated ~ \$600,000

Lake George Branch Wetlands Restoration Project Habitat Management Action #3

- Phase 1
 - Initial restoration work funded by NFWF (SOGL) and USFWS (GLRI) w/matching funds from NRDA - 2013
 - \$742,000 total project thru April 2016
 - EPA secured funding (\$500,000) for the project for an additional four years

Lake George Branch Wetlands Restoration Project

- Phase 2
 - DNR awarded \$300,000 on April 1, 2016 by USEPA
 - Remaining \$200,000 awarded in mid 2017.
 - Continue invasive species control/removal
 - Prescribed burning in some, hopefully all, areas
 - Possible supplemental seeding/planting in 2019.
 - Monitoring work completed in August '14, '15, '16
 - Additional monitoring work in August '17 and '19
- Total project cost = \$500,000 thru 2019

Lake George Wetlands Restoration Project



Map Coordinate System:
WGS_1984_Web_Mercator_Auxiliary_Sphere

Author: Carl J. Wodrich
Date: June 12, 2015



0 0.15 0.3 0.6 Miles

1:20,000



Indiana Dept. of Natural Resources
Geographic Information Systems

Legend

- Hammond Port Authority
- BP/Wal-Mart/Parale
- EconoMall
- Valero
- DNR Easement BP
- Mgmt Area 2020
- State Boundary



BP Wetland – August 25, 2013





Dead Phragmites mowed down
March 8, 2014



George Lake Prescribed Burn

December 2014



BP Wetland – May 2016



BP Wetland – July 2016



BP Wetland – July 2016



BP Wetland – August 2017



Lake Mary – July 2016



Lake Mary – August 2017



George Lake West Wetland

August 2017








AOC Burn Plans & Prescribed Burning



Habitat Management Action #4

- USFWS contracting out plans.
- DNR and/or partner land management entities will conduct burns and/or contract out burns with funding from EPA (possibly through USFWS/DNR)
 - 26 plans
- Total project cost estimated at \$600,000 through 2020.



-  Lake County Parks
-  IDEM
-  TNC
-  Shirley Heinze LT
-  No burns planned

Pine Station Nature Preserve

Habitat Management Action #5

- Ponds and Oxbow Restoration
 - USEPA funding USACE feasibility study and engineering design
 - Potential water control structure(s)
 - Habitat restoration in/around ponds
 - Grading and capping of ponds and fly ash
 - Restoration of berm btw south pond and river
 - Restoration of “oxbow” wetland/marsh



Indiana Department of
Natural Resources **DNR**



Pine Station Nature Preserve

South Pond/GCR – May 2016



Pine Station Nature Preserve
North Pond – July 21, 2015

Habitat Measures

HSA (22 logs); HSB (7 logs)

- ✕ Basking Log (15 logs)
- ✱ Fish Crib (14 logs)

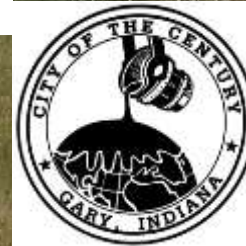
Native Plant Communities

- NPB: Riverine Marsh Bend (1.6-ac)
- NPC: Riverine Marsh Shelf Shallow (13.9)
- NPC: Riverine Marsh Shelf Deep (6.0-ac)
- NPD: Hemi Marsh Deep N (17.4-ac)
- NPD: Hemi Marsh N (5.1-ac)
- NPE: Hemi Marsh Deep S (9.8-ac)
- NPE: Hemi Marsh S (5.9-ac)
- NPF: Prairie Savanna (46.3-ac)



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNR/Airphoto DS, USDA, USDA, AeroGRID, IGN, and the GIS User Community

It's all about the Partnerships



The Hammond
Port Authority



Indiana Department of
Natural Resources **DNR**

Questions???



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